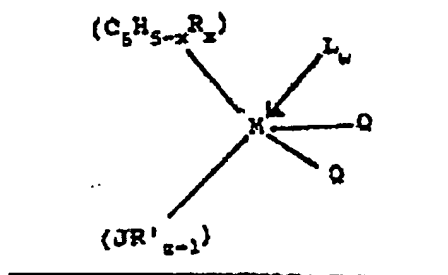


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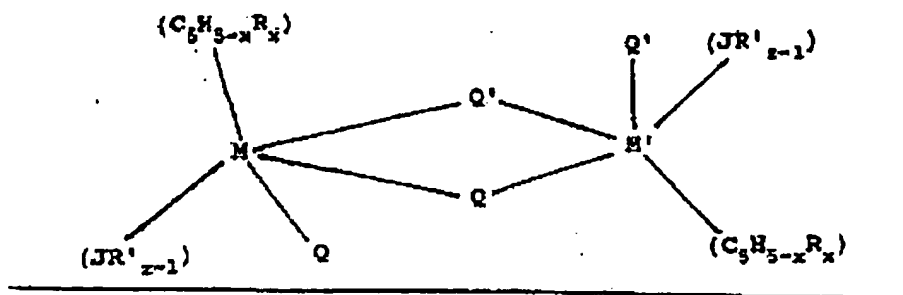
1.-33. (canceled)

34. (currently amended) A process for the polymerization of one or more olefins comprising conducting the polymerization in the presence of a catalyst system comprising:

(A) a Group IV B transition metal component of the formula:



or



wherein "M" is Zr, Hf or Ti;

(C₅H_{5-x}R_x) is a cyclopentadienyl ring which is substituted with from zero to five substituent groups R, "x" is 0, 1, 2, 3, 4 or 5 denoting the degree of substitution, and each R is, independently, a radical selected from a group consisting of C₁-C₂₀ hydrocarbyl radicals, C₁-C₂₀ substituted hydrocarbyl radicals wherein one or more hydrogen atoms is replaced by a halogen atom, C₁-C₂₀ hydrocarbyl-substituted metalloid radicals wherein

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cyclopentadienyl ligand:

(B) an alumoxane.

37. (previously presented) The process of claim 34 wherein the heteroatom ligand group J element is nitrogen, phosphorous, oxygen or sulfur.

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38. (previously presented) The process of claim 34 wherein Q is a halogen or hydrocarbyl radical.
39. (previously presented) The process of claim 34 wherein M is zirconium or hafnium.
40. (previously presented) The process of claim 34 wherein the heteroatom ligand group J element is nitrogen.
41. (previously presented) The process of claim 34 wherein the mole ratio of Al:M is from 10:1 to 20,000:1.
42. (previously presented) The process of claim 34 wherein x is 0 or 1.